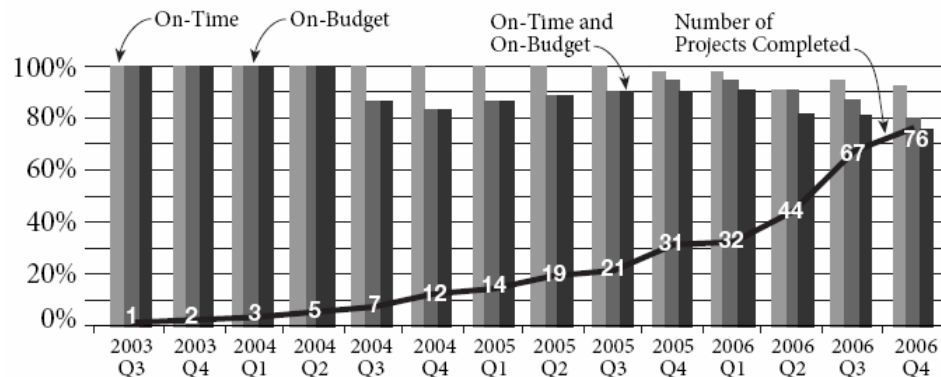


## 1. Capital Project Delivery Target: 90% of Projects Delivered Both On Budget and On Time

### Cumulative Nickel & TPA Project Schedule and Budget Performance

Third Quarter 2003 - Fourth Quarter 2006



**Source:** WSDOT Project Control and Reporting Office

**Data Comments:** All data is presented in Calendar Years. Data as of 12/31/06.

### Analysis

WSDOT is providing information by region, by project size, and by subprogram in this GMAP forum. Each of these presentations of the data shows that construction cost increases and a declining bidding climate have affected all types of capital projects, and that there is no single attribute common to projects that are late or over budget.

**Despite rising construction costs and a deteriorating competitive bidding climate, WSDOT has delivered \$524.7 million of TPA and Nickel projects within 98.4% of budget expectations.**

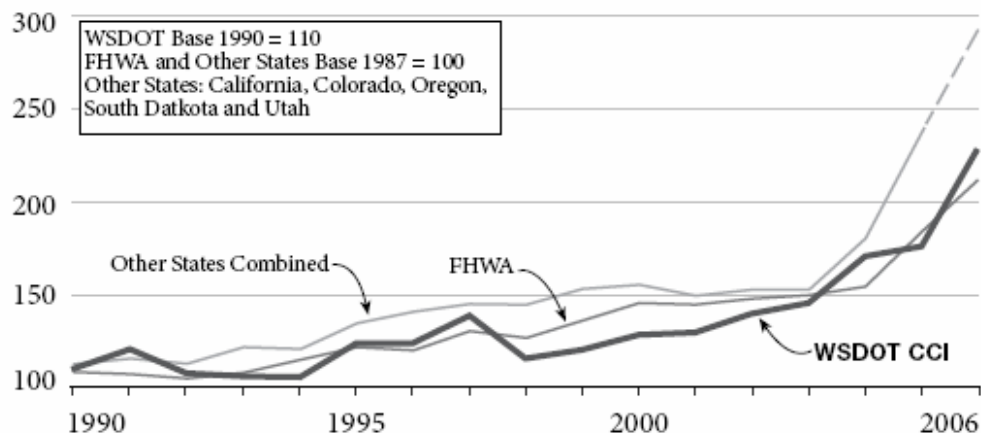
Of these 76 completed Nickel and TPA projects:

- 92% were completed early or on-time
- 100% were completed within scope
- 80% were completed on-budget
- 75% were completed on time and on budget

## 1. Capital Projects Delivery Action Plan

What	Who	When	Status
Project Delivery: WSDOT is attempting to influence the bidding climate	WSDOT Construction Office	6/30/2009	In Progress
Project Delivery: When Appropriate, Utilize Design-Build Contracts	WSDOT Construction Office	6/30/2009	In Progress
Pursue legislation to cap the requirements for surety bonds	WSDOT Construction Office	1/31/2008	Not Started
Utilize Alternate Contract Methodologies to Maximize Value Within Budgeted Dollars	WSDOT Construction Office	6/30/2009	In Progress
Report to Governor's Office on results from 2007 Construction season in November 2007	WSDOT Construction Office	11/7/2007	Not Started

## Construction Cost Indices Washington State, FHWA, and Other States



**Source:** WSDOT Construction Office, Federal Highway Administration (FHWA)

**Data Comments:** WSDOT 2006 Index is for Quarters 1, 2, & 3; Other States 2006 Index based on Oregon and Utah 1, 2, & 3 quarter data; 3 quarter data; 3 quarter data not available for California, Colorado and South Dakota; 2006 data not available for FHWA

### Analysis

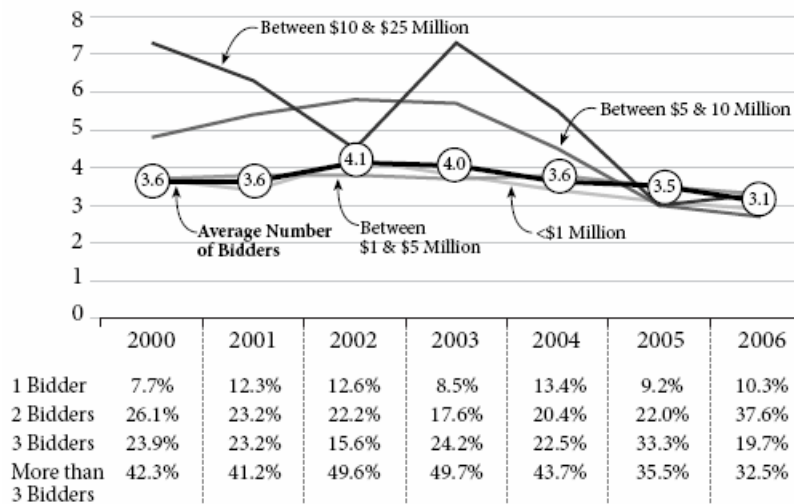
The average annual growth rate of the CCI from 1990 through 2001 was 1.5% per year. However, since 2001, the average growth rate has been 12% per year. During this period the CCI has been driven up by several factors, including: the increasing worldwide demand for construction materials; rising crude oil prices and other energy supply issues; and recent increases in national and international construction activity.

WSDOT's CCI has increased 30% in the first three quarters of 2006 over the annual average for 2005, from 176 to 228. The driving force behind this increase is the rising costs of Hot Mix Asphalt (HMA). Of the seven materials WSDOT tracks in the CCI, HMA comprises almost half the weight of the index (see gray box). HMA prices rose 35% in the first three quarters of 2006 following increased crude oil prices and decreases in liquid asphalt production. (see June 30, 2006 *Gray Notebook*, p. 32 for more information)

## 1.2 Number of Bids and Bidders

### Average Number of Bidders

By Size of Contract



**Source:** WSDOT Construction Offices

**Data Comments:**

### Analysis

WSDOT's goal is to have three or more bidders for each highway construction project. However, large public and private construction programs in Washington, as well as at the national level, are contributing to a trend of fewer contractors submitting bids for WSDOT projects. The reduction in bidding competition is a sign that contractors have a full workload ahead of them. Unfortunately, this reduction in competition will tend to produce higher prices for WSDOT projects.

The average number of contractors bidding on each WSDOT project decreased 12% in 2006, from an average of 3.5 bidders in 2005 to an average of 3.1 bidders in 2006. The reduction in the number of bidders has been a trend since 2002, with significant downward movement occurring since 2004.

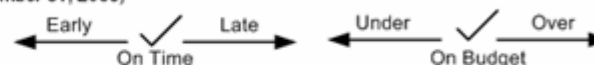
## 1.3 Individual Project Delivery Performance

### INDIVIDUAL PROJECT DELIVERY PERFORMANCE

#### HIGHWAY CONSTRUCTION PROGRAM

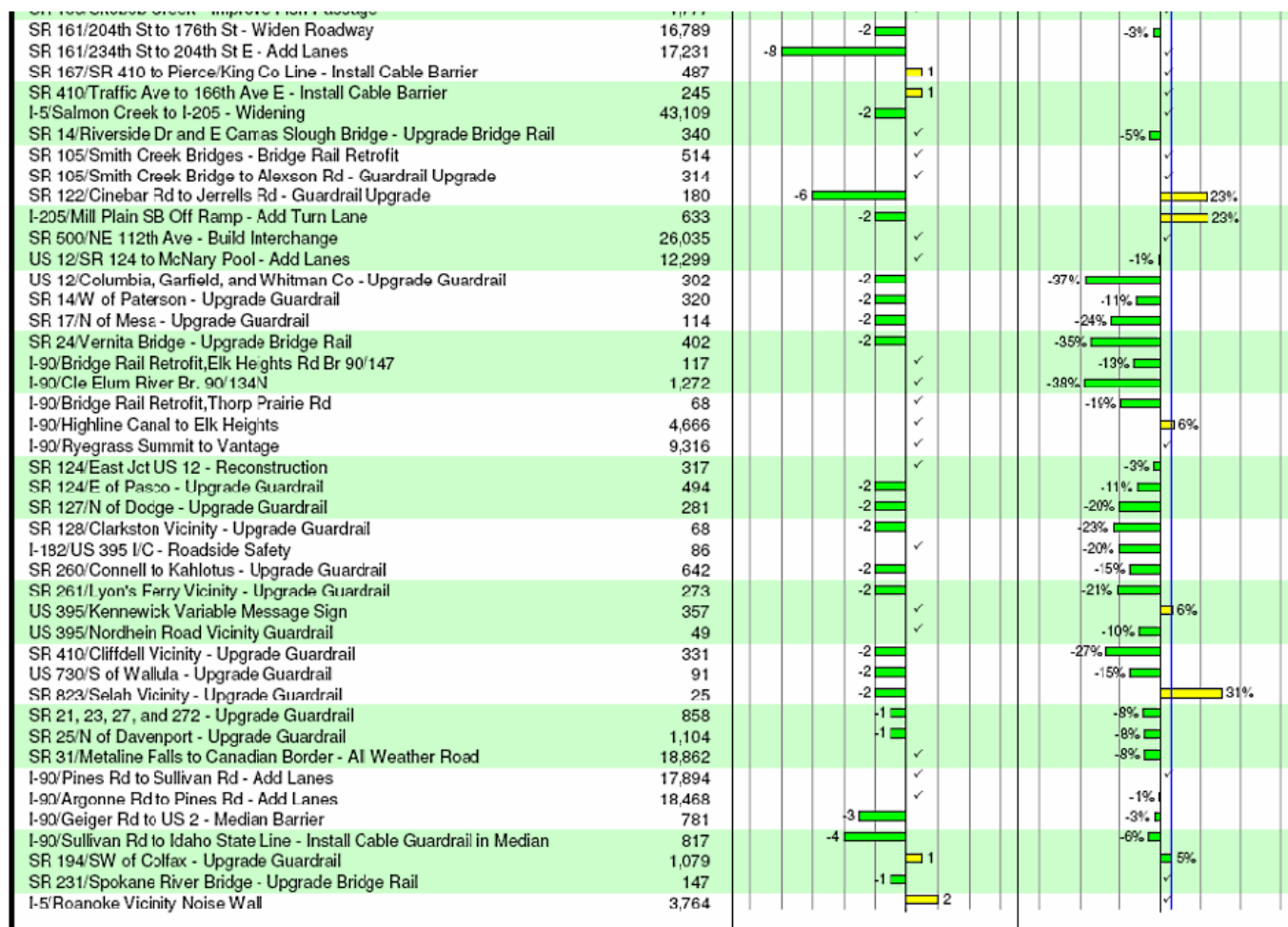
##### Nickel- and TPA-Funded Projects

(Quarter Ending December 31, 2006)



Project Title	Current Legislative Expectation (in thousands)	Schedule Performance (Difference in Quarters) <sup>1</sup> Ahead of Schedule in Green/ Late in Yellow	Budget Performance (Percentage Difference) <sup>2</sup> Under Budget in Green/ Over Budget in Yellow
I-5/NE 175th St to NE 205th St - Add NB Lane	8,915	-3	
I-5/52nd Ave W to SR 526 - Roadside Safety and Ramp Improvements	2,642	-3	5%
I-5/300th St NW Vic to Anderson Rd Vic - Install Cable Barrier	1,288	-6	
I-5/2nd Street Bridge-Replace Bridge	14,333	-2	
I-5/SR 11 Vic to Weigh Station Vic - Install Cable Barrier	436	-6	
I-5/SB Ramps at SR 11/Old Fairhaven Parkway - Add Ramp Lane	1,647	-1	47%
I-5/SR 11 to 36th St - Install Cable Barrier	68	-6	53%
I-5/SR 542 Vicinity to Bakerview Rd - Install Cable Barrier	202	-6	26%
I-5/Main St to SR 548 - Install Cable Barrier	409	-6	
I-5/Blaine Vicinity - Median Cross Over Protection	245	-6	
SR 9/SR 528 Intersection - Signal	750	-5	
SR 9/Nooksack Rd Vicinity to Cherry St - New Alignment	18,010	-4	
SR 18/SE 304th to SR 516 - Install Cable Barrier	250	-6	
SR 18/Covington Way to Maple Valley - Add Lanes	68,525		
SR 18/Maple Valley to Issaquah/Hobart Rd - Add Lanes	115,429	5	11%
SR 99/SR 599 to Holden St - Install Cable Barrier	380	-1	15%
SR 161/Jovita Blvd to S 360th St, Stage 2 - Widen to Five Lanes	30,164	-2	-15%
SR 202/244th Ave NE Intersection - Add Signal and Turn Lane	1,104	-1	10%
SR 202/Jct 292nd Ave SE - Add Signal and Turn Lane	586		
SR 203/NE 124th/Novelty Rd Vicinity - Construct Roundabout	3,634	-4	
SR 522/N Creek Vic to Bear Creek Vic - Install Cable Barrier	271	-6	
SR 527/132nd St SE to 112th St SE - Add Lanes	20,933	1	
NC Regionwide - Upgrade Guardrail	849	-2	
I-90/Silica Road to East of Adams Road - Median Cross Over Protection	322	-3	-9%
I-90/SR 17 to Grant/Adams County Line - Median Cross Over Protection	787	-3	-5%
I-90/Potato Hill Bridge - Add Pedestrian Access	750	-1	
I-90/Moses Lake Area - Replace Bridges	8,056	-1	-1%
US 97/Ellensburg Vic to Tonasket Vic - Roadside Safety Improvement	1,000	-2	5%
US 97A/Entiat Park Entrance - Turn Lanes	196		-34%
I-5/Puyallup River to Fife Interchange	338		-22%
US 12/Montesano Vicinity to Elma - Install Cable Barrier	1,620	-3	20%
SR 16/36th St to Olympic Dr NW - Add HOV Lanes	8,914	-9	
SR 106/Skobob Creek - Improve Fish Passage	1,777		

## 1.3 Individual Project Delivery Performance



Source: WSDOT Project Control and Reporting

### Data Comments:

1. Schedule Performance is the difference between the Actual Operationally Complete data and the Legislative Expectation Operationally Complete data. Projects that are completed in the same quarter as expected are considered on time. Difference shown are in quarters.

2. Budget Performance compares the Cost to Complete to the Legislative Expectation (Baseline) cost at the time the project is completed. Projects are considered "on budget" if they are completed within 5% of the Legislative Expectation.

## 1.4 Project Delivery Performance by Region (CY 2006)

### Analysis

#### Regional Analysis:

Per the Leadership Team's request, WSDOT is providing project delivery data on a regional basis. Our analysis shows that each of the regions struggles with the same risks identified in the Capital Project Delivery Overview page.

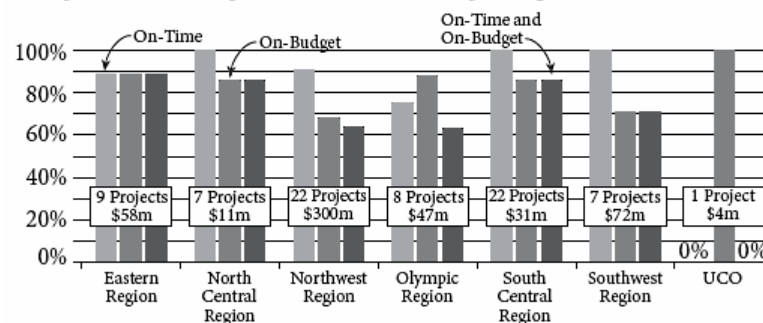
**North Central Region:** 7 projects have been completed as of December 31, 2006. 7 of those projects were delivered on-time, and 6 projects were delivered on budget. The reason for the one project being over budget was higher than anticipated cost for guardrail. The region delivered \$11.8 million of projects one percent below budget expectations.

**South Central Region:** 22 projects have been completed as of December 31, 2006. All of these projects were delivered on-time, and 19 were delivered on-budget. For the three projects delivered over-budget, one was the result of discovering a large amount of saturated clay during excavation, which is unsuitable roadway material; the second was over-budget due to additional work that had not been included in the contract plans; and the third project under-estimated traffic control and contract administration costs. The region delivered \$31.2 million in projects two percent below budget expectations.

**Northwest Region:** 22 projects have been completed as of December 31, 2006, with 20 of these projects delivered on-time, and 15 were delivered on-budget. The 2 projects delivered late were the result of heavy rain and snow conditions that forced construction to halt for a period of time. Of the 7 projects that were over-budget, 3 were the result of higher prices for concrete, steel, aggregate and oil products; 3 projects upgraded materials for cable median barrier; and 1 project erred in the cost estimate by failing to include sales tax. The region delivered \$299.9 million in projects three percent above budget expectations.

**Olympic Region:** 8 projects have been completed as of December 31, 2006, with 6 of these projects delivered on-time, and 7 delivered on-budget. The 1 project that was over-budget was the result of extensive and unanticipated slope work. The region delivered \$47.4 million in projects less than one percent below budget expectations.

### Project Delivery Performance by Region



**Source:** WSDOT Project Control & Reporting

**Data Comments:** Includes all projects cumulatively through 12/31/06

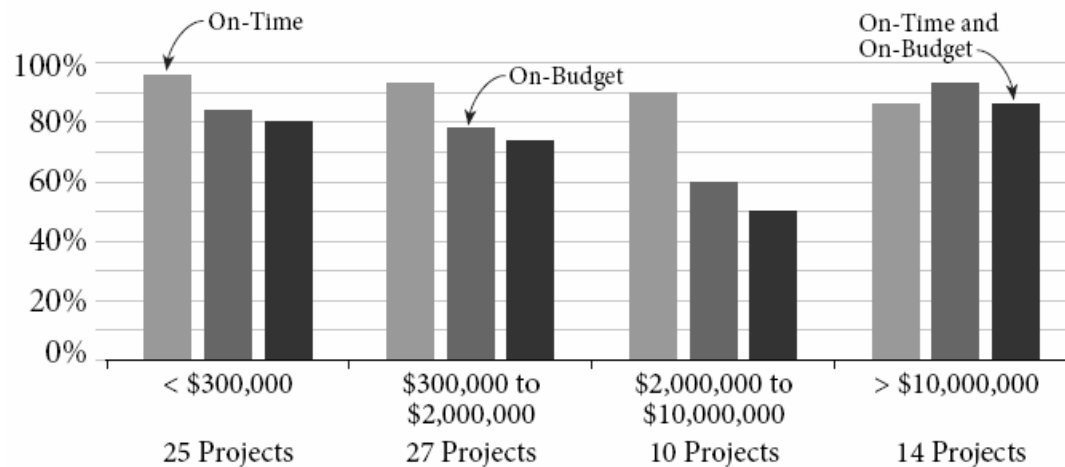
**Eastern Region:** 9 projects have been delivered as of December 31, 2006. Of the 9 projects, 8 were delivered on-time and on-budget. 1 project was late due to the necessity of keeping the road open to traffic for the local community during the harvest season. 1 project was over-budget as a result of higher-than-anticipated fuel prices. The region delivered \$58.3 million in projects nearly three percent below budget expectations.

**Southwest Region:** 7 projects have been delivered as of December 31, 2006. Of the seven projects, 5 were delivered on-time and on-budget. The region delivered \$72.6 million in projects two percent over budget expectations.



## 1.5 Project Delivery Performance by Size of Project

### Highway Construction Program: Nickel and TPA Funded Projects Delivery Performance by Project Size

**Source:**

WSDOT Project Control and Reporting

**Data Comments:**

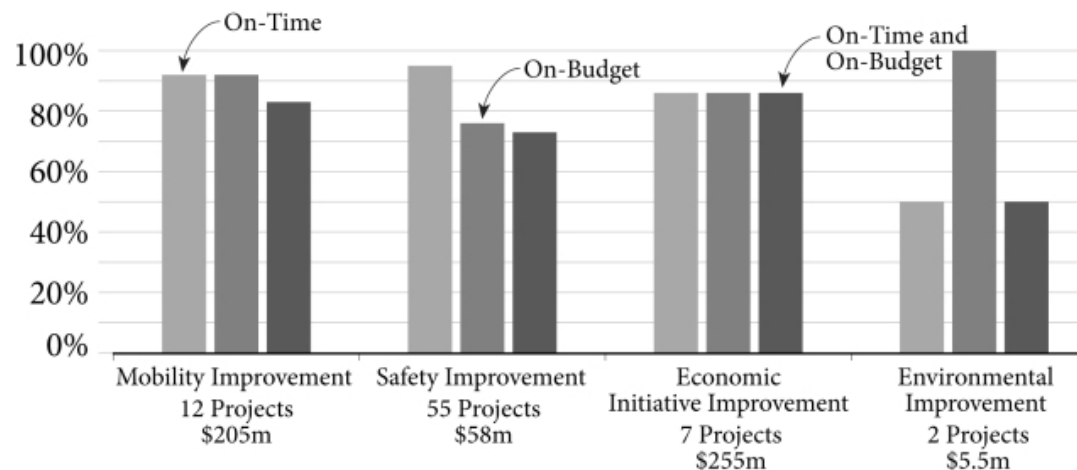
Includes all projects cumulatively through 12/31/06

## Analysis

WSDOT project delivery has been consistent regardless of size and scope of projects. There is not a significant difference in on-time and on-budget performance between projects with legislative expectations below \$300,000, between \$300,000 and \$2,000,000, and projects with legislative expectations above \$2,000,000.



## 1.6 Project Delivery Performance by Size of Project



**Source:**

WSDOT Project Control and Reporting

**Data Comments:**

Includes all projects cumulatively through 12/31/06

## Analysis

All 76 projects delivered as part of the Nickel and TPA funding packages to date have been part of the improvement program. The vast majority of funding (\$460 million) has gone towards the mobility improvements (examples include adding or widening lanes on state highways) and economic initiative improvements (examples include putting in an all-weather road to the Canadian border). On-time and on-budget performance for these two programs are above 80%. 72% of the projects completed to date have been safety improvement projects. However, these projects only account for 11% of Nickel and TPA funding spent on completed projects. 10 of these projects have been over budget, with cable median barrier and guardrail projects accounting for 6 of those projects. The total cost overrun for these 10 safety improvement projects that were over budget was \$1.9 million dollars.

*Note:* There have been two environmental improvement projects completed in the Nickel and TPA programs to date. Both were completed on budget and one was delivered late.